

### ■ Features

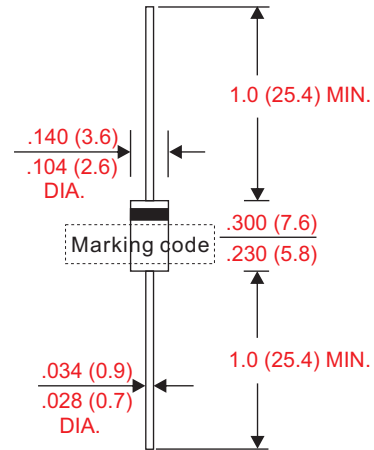
- Axial lead type devices for through hole design.
- High current capability.
- Ultrafast recovery time for switching mode application.
- High surge current capability.
- Glass passivated chip junction.
- Suffix "G" indicates Halogen free parts, ex. UF2005G
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, DO-204AC / DO-15
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Weight : Approximated 0.39 gram

### ■ Outline

DO-15(DO-204AC)



Dimensions in inches and (millimeters)

### ■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current		$I_O$			2.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$			50	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$	$I_R$			5.0	uA
	$V_R = V_{RRM}$ $T_A = 125^\circ\text{C}$				100	
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	$C_j$		30		pF
Storage temperature		$T_{STG}$	-55		+150	°C

Symbol	Marking code	Max. repetitive peak reverse voltage $V_{RRM}$ (V)	Max. RMS voltage $V_{RMS}$ (V)	Max. DC blocking voltage $V_R$ (V)	Max. forward voltage @2A, $T_A = 25^\circ\text{C}$ $V_F$ (V)	Max. reverse recovery time(1) $T_{rr}$ (ns)	Operating temperature $T_J$ (°C)
UF2005	UF2005	50	35	50	1.0	50	-55 ~ +150
UF201	UF201	100	70	100			
UF202	UF202	200	140	200			
UF204	UF204	400	280	400	1.40	75	
UF206	UF206	600	420	600			
UF208	UF208	800	560	800			
UF210	UF210	1000	700	1000	1.70		

Note : 1.  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$

### Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

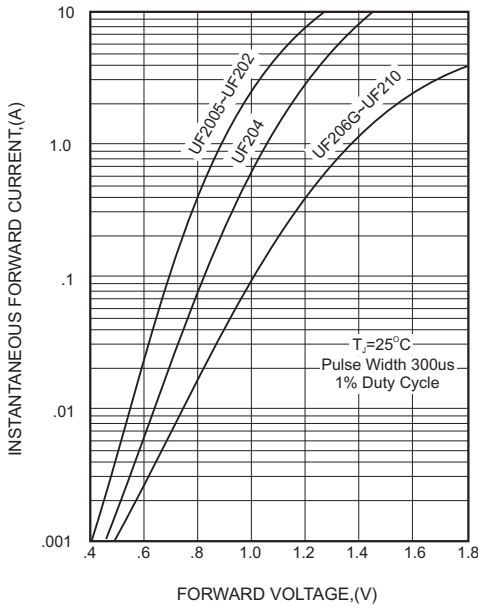


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

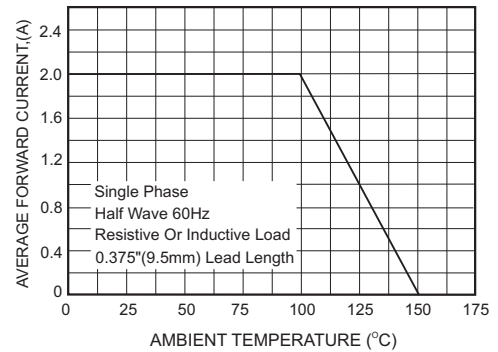
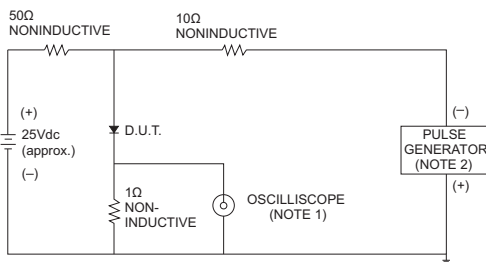


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

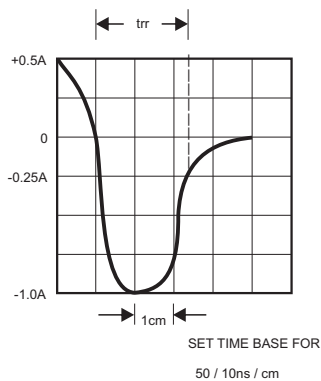


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

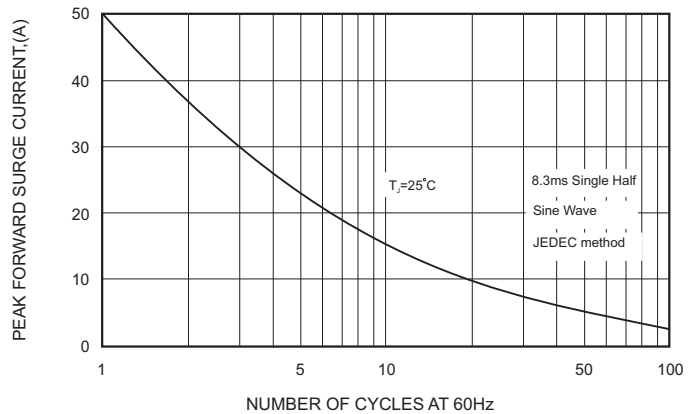
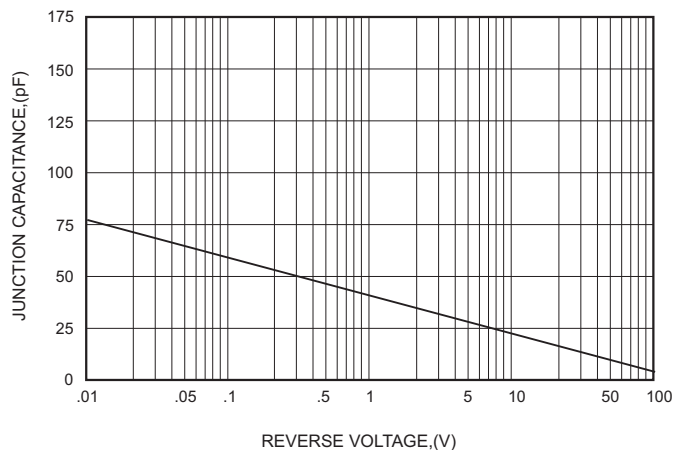


FIG.5-TYPICAL JUNCTION CAPACITANCE



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